

REMARKS

In the Office Action¹ dated January 18, 2011, the Examiner:

- Rejected claims 19, 21, 23-26, 33-35, 37, 38, 43, 44, 46, 47, 49-66, 69, and 70 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0080491 A1 to Takatsuka et al. (“Takatsuka”) as a translation of WO/2002/086694 (“Takatsuka WO”) in view of U.S. Patent No. 6,864,679 B2 to Yokoji et al. (“Yokoji”).

By this Amendment, Applicant amended claims 19 and 51. Claims 19, 21, 23-26, 33-35, 37, 38, 43, 44, 46, 47, 49-66, 69, and 70 are currently pending.

Rejection under 35 U.S.C. § 103(a)

Applicant apologize for not recognizing that, although Takatsuka cannot be relied upon as prior art to support the 35 U.S.C. § 103(a) rejection, the corresponding WO application, Takatsuki PCT as published on April 19, 2002, quite obviously can.

Nevertheless, Applicants respectfully submit that a *prima facie* case of obviousness has not been established at least because Takatsuka WO and Yokoji are fundamentally different. Takatsuka WO is a pointing device that relies on changes in vertical flux as a magnet, with vertical flux orientation, is moved in a plane and/or tilted, while Yokoji detects passage of a series of bar magnets as they are rotated past a detecting element.

It is only Applicant who reveals the surprising results of horizontal flux orientation in the context of the present invention that: (1) improves operation over the admitted vertical flux orientation of Fig. 13 (and therefore Takatsuka WO) by providing increased sensitivity as the limits of movement are reached, and (2) results in measurements that

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement of characterization in the Office Action.

are nearly independent of coordinate axis movement. (See para [0099] of US 2006/0050053, the published form of the present application).

Yokoji discloses a “ring-shaped magnet 13 [that] has its N poles and S poles magnetized at specified angle alternately or in the same polarity only.” Yokoji (3:19-21). But in fact Yokoji merely discloses plurality of bar magnets arranged in a ring with gapping areas of non-magnetized material there between. With all due respect to the Examiner, it is difficult to understand why a person skilled in the art to which the invention applies, pointing devices, would expect the results obtained by Takatsuka WO’s vertical flux orientation (as may be seen for example in Figs 25 and 26) using a so-called “ring magnet” with intermittent poles as in Yokoji. In fact we now know that he would not get these results -- he would get superior results as shown in Fig. 13 of the present application.

The Examiner points to reduced external flux teaching at (5:13-19) of Yokoji, but ignores the fact this is taught to increase the field detected as the “ring” rotations and various poles pass the detector element (5:19-21). There is no such “rotation” in Takatsuka WO and thus, no motivation to employ the Yokoji ring in Takatsuka WO. Moreover, Takatsuka WO already teaches at (11:58-64) the use of a shield with vertical flux orientation, so there is no need to change to horizontal orientation as in Yokoji just to obtain the benefits of a shield.

Yokoji further discloses “the detecting element 21 is positioned in the hole 14D of the base 14 through the insulating sheet 22 so as to be opposite to the ring-shaped magnet 13 in the vertical direction, and the lower side of the ring-shaped magnet 13 and the upper side of the insulating sheet 22 on the detecting element 21 are combined so

as to be disposed across a slight gap in the vertical direction." (3:55-61). Thus, detecting elements 21 of Yokoji detect magnetic flux density produced by ring-shaped magnet 13 in a direction vertical to substrate 20. In contrast, the magnetic flux density in Takatsuka WO is calculated by moving magnet 62 in a horizontal direction. See Figs. 12A and 12B and paragraph [0116]. Thus, it would not have been obvious for one of ordinary skill in the art to replace magnet 62 of Takatsuka WO with ring-shaped magnet 13 of Yokoji, because Takatsuka WO and Yokoji detect magnetic flux density in different directions.

Moreover, ring-shaped magnet 13 of Yokoji is not "movably supported in a plane to move to various locations within that plane," as recited in claims 19 and 51. In contrast, ring-shaped magnet 13 of Yokoji operates by rotating along a single axis. See col. 4, lines 59-64.

Accordingly, for at least the reasons noted above, Applicant respectfully submits that it was not and is not obvious to combine Takatsuka WO and Yokoji and, thus, the 35 U.S.C. § 103(a) rejection of claims 19, 21, 23-26, 33-35, 37, 38, 43, 44, 46, 47, 49-66, 69, and 70 based on that combination should be withdrawn..

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge
any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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